

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

2

Docket No.: 20028-7004

RECEIVED
CENTRAL FAX CENTER

OCT 30 2006

AMENDMENTS TO THE CLAIMS

Claim 1 (Canceled): ~~A display assembly, comprising:~~

~~a plurality of radiation wave modulators, each modulator including:
a first element for producing a wave component from a radiation wave,
said wave component having a polarization property wherein said
polarization property is one of a set of orthogonal polarizations;
an optical transport for receiving said wave component;
a transport influencer, operatively coupled to said optical transport, for
affecting said polarization property of said wave component
responsive to a control signal; and
a second element for interacting with said affected wave component
wherein an intensity of said wave component is varied responsive to
said control signal;
a radiation source for producing said radiation wave for each said
modulator; and
a controller, coupled to said modulators, for selectively asserting each
said control signal to independently control said intensity of each said
modulator.~~

Claim 2 (Canceled): ~~The assembly of claim 1 wherein said first element and
said second element are polarization filters.~~

Claim 3 (Canceled): ~~The assembly of claim 1 wherein said elements are
integrated into said transport.~~

Claim 4 (Canceled): ~~The assembly of claim 1 wherein said influencer
produces a controllable magnetic field parallel to a propagation
direction of said wave through said transport to alter said polarization
property.~~

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

3

Docket No.: 20028-7004

- Claim 5 (Canceled): ~~The assembly of claim 1 wherein said influencer alters said polarization property by changing a rotation angle of said wave component in a range from about zero degrees to about ninety degrees.~~
- Claim 6 (Canceled): ~~The assembly of claim 1 wherein said transport is a fiber waveguide including a core and a cladding and wherein said influencer includes a magnetic material proximate said cladding.~~
- Claim 7 (Canceled): ~~The assembly of claim 6 wherein said magnetic material includes permanent magnetic material.~~
- Claim 8 (Canceled): ~~The assembly of claim 6 wherein said magnetic material is selectively magnetized responsive to an electric current.~~
- Claim 9 (Canceled): ~~The assembly of claim 6 wherein said magnetic material is integrated into said fiber waveguide.~~
- Claim 10 (Canceled): ~~The assembly of claim 5 wherein said elements are circular polarization filters having a crossed transmission orientation.~~
- Claim 11 (Canceled): ~~The assembly of claim 5 wherein said elements are circular polarization filters having an aligned transmission orientation.~~
- Claim 12 (Canceled): ~~The assembly of claim 1 wherein one or more of said wave components may be extinguished responsive to preselected control signals from said controller to one or more corresponding modulators.~~
- Claim 13 (Canceled): ~~The assembly of claim 1 wherein said modulators each have an output port for producing said wave component with said influencer controlled intensity.~~

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

4

Docket No.: 20028-7004

~~Claim 14 (Canceled): The assembly of claim 13 wherein said output ports are arranged into a display pattern.~~

~~Claim 15 (Canceled): The assembly of claim 14 wherein said display pattern is a regular ordered matrix of N rows and M columns.~~

~~Claim 16 (Canceled): The assembly of claim 13 further comprising a front panel for arranging said output ports into said pattern.~~

~~Claim 17 (Canceled): The assembly of claim 16 wherein said front panel includes a pixel effect element proximate each corresponding output port.~~

~~Claim 18 (Canceled): The assembly of claim 17 wherein each said pixel effect element disperses said wave component from said corresponding output port.~~

Claim 19 (Original): A display method, the method comprising:
producing a radiation wave for each of a plurality of modulators, each modulator including:
a first element for producing a wave component from said radiation wave, said wave component having a polarization property wherein said polarization property is one of a set of orthogonal polarizations;
an optical transport for receiving said wave component;
a transport influencer, operatively coupled to said optical transport, for affecting said polarization property of said wave component responsive to a control signal; and
a second element for interacting with said affected wave component wherein an intensity of said wave component is varied responsive to said control signal; and

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

5

Docket No.: 20028-7004

asserting selectively each said control signal to independently control said intensity of each said modulator.

Claim 20 (Original): The method of claim 19 wherein said first element and said second element are polarization filters.

Claim 21 (Original): The method of claim 19 wherein said elements are integrated into said transport.

Claim 22 (Original): The method of claim 19 including producing a controllable magnetic field parallel to a propagation direction of said wave through said transport to alter said polarization property.

Claim 23 (Original): The method of claim 19 including altering said polarization property by changing a rotation angle of said wave component in a range from about zero degrees to about ninety degrees.

Claim 24 (Original): The method of claim 19 wherein said transport is a fiber waveguide including a core and a cladding and wherein said influencer includes a magnetic material proximate said cladding.

Claim 25 (Original): The method of claim 24 wherein said magnetic material includes permanent magnetic material.

Claim 26 (Original): The method of claim 24 including selectively magnetizing said magnetic material responsive to an electric current.

Claim 27 (Original): The method of claim 24 wherein said magnetic material is integrated into said fiber waveguide.

Claim 28 (Original): The method of claim 23 wherein said elements are circular polarization filters having a crossed transmission orientation.

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

6

Docket No.: 20028-7004

Claim 29 (Original): The method of claim 23 wherein said elements are circular polarization filters having an aligned transmission orientation.

Claim 30 (Original): The method of claim 19 wherein one or more of said wave components may be extinguished responsive to preselected control signals from said controller to one or more corresponding modulators.

Claim 31 (Original): The method of claim 19 wherein said modulators each have an output port for producing said wave component with said influencer controlled intensity.

Claim 32 (Original): The method of claim 31 wherein said output ports are arranged into a display pattern.

Claim 33 (Original): The method of claim 32 wherein said display pattern is a regular ordered matrix of N rows and M columns.

Claim 34 (Original): The method of claim 31 further comprising a front panel for arranging said output ports into said pattern.

Claim 35 (Original): The method of claim 32 wherein said front panel includes a pixel effect element proximate each corresponding output port.

Claim 36 (Original): The method of claim 35 wherein each said pixel effect element disperses said wave component from said corresponding output port.

Claim 37 (Canceled): A display apparatus, comprising:
means for producing a radiation wave for each of a plurality of means
for modulating, each including:
a first element means for producing a wave component from said

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

7

Docket No.: 20028-7004

~~radiation wave, said wave component having a polarization property wherein said polarization property is one of a set of orthogonal polarizations;~~
~~an optical transport means for receiving said wave component;~~
~~a transport influencer means, operatively coupled to said optical transport, for affecting said polarization property of said wave component responsive to a control signal; and~~
~~a second element means for interacting with said affected wave component wherein an intensity of said wave component is varied responsive to said control signal; and~~
~~means for asserting selectively each said control signal to independently control said intensity of each said modulator.~~

Claim 38 (Canceled): ~~The apparatus of claim 37 wherein said first element means and said second element means include polarization filters.~~

Claim 39 (Canceled): ~~The apparatus of claim 37 wherein said elements means are integrated into said transport.~~

Claim 40 (Canceled): ~~The apparatus of claim 37 including a means for producing a controllable magnetic field parallel to a propagation direction of said wave through said transport means to alter said polarization property.~~

Claim 41 (Canceled): ~~The apparatus of claim 37 including a means for altering said polarization property by changing a rotation angle of said wave component in a range from about zero degrees to about ninety degrees.~~

Claim 42 (Canceled): ~~The apparatus of claim 37 wherein said transport means includes a fiber waveguide including a core and a cladding and~~

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

8

Docket No.: 20028-7004

~~wherein said influencer means includes a magnetic material proximate
said cladding.~~

~~Claim 43 (Canceled): The apparatus of claim 42 wherein said magnetic
material includes permanent magnetic material.~~

~~Claim 44 (Canceled): The apparatus of claim 42 including means for
selectively magnetizing said magnetic material responsive to an
electric current.~~

~~Claim 45 (Canceled): The apparatus of claim 42 wherein said magnetic
material is integrated into said fiber waveguide.~~

~~Claim 46 (Canceled): The apparatus of claim 41 wherein said elements
means include circular polarization filters having a crossed
transmission orientation.~~

~~Claim 47 (Canceled): The apparatus of claim 41 wherein said elements
means includes circular polarization filters having an aligned
transmission orientation.~~

~~Claim 48 (Canceled): The apparatus of claim 41 wherein one or more of said
wave components may be extinguished responsive to preselected
control signals from said controller means to one or more
corresponding modulator means.~~

~~Claim 49 (Canceled): The apparatus of claim 37 wherein said modulator
means each have an output port for producing said wave component
with said influencer means controlled intensity.~~

~~Claim 50 (Canceled): The apparatus of claim 31 wherein said output ports
are arranged into a display pattern.~~

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

9

Docket No.: 20028-7004

~~Claim 51 (Canceled): The apparatus of claim 50 wherein said display pattern is a regular ordered matrix of N rows and M columns.~~

~~Claim 52 (Canceled): The apparatus of claim 49 further comprising a front panel for arranging said output ports into said pattern.~~

~~Claim 53 (Canceled): The apparatus of claim 50 wherein said front panel includes a means for effecting each proximate each corresponding output port.~~

~~Claim 54 (Canceled): The apparatus of claim 53 wherein each said effecting means disperses said wave component from said corresponding output port.~~

~~Claim 55 (Canceled): A computer program product comprising a computer readable medium carrying program instructions for a display when executed using a computing system, the executed program instructions executing a method, the method comprising:
producing a radiation wave for each of a plurality of modulators, each modulator including:
a first element for producing a wave component from said radiation wave, said wave component having a polarization property wherein said polarization property is one of a set of orthogonal polarizations;
an optical transport for receiving said wave component;
a transport influencer, operatively coupled to said optical transport, for affecting said polarization property of said wave component responsive to a control signal; and
a second element for interacting with said affected wave component wherein an intensity of said wave component is varied responsive to said control signal; and~~

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

10

Docket No.: 20028-7004

~~asserting selectively each said control signal to independently control
said intensity of each said modulator.~~

~~Claim 56 (Canceled): The computer program product of claim 55 wherein
said first element and said second element are polarization filters.~~

~~Claim 57 (Canceled): The computer program product of claim 55 wherein
said elements are integrated into said transport.~~

~~Claim 58 (Canceled): The computer program product of claim 55 including
producing a controllable magnetic field parallel to a propagation
direction of said wave through said transport to alter said polarization
property.~~

~~Claim 59 (Canceled): The computer program product of claim 55 including
altering said polarization property by changing a rotation angle of said
wave component in a range from about zero degrees to about ninety
degrees.~~

~~Claim 60 (Canceled): The computer program product of claim 55 wherein
said transport is a fiber waveguide including a core and a cladding and
wherein said influencer includes a magnetic material proximate said
cladding.~~

~~Claim 61 (Canceled): The computer program product of claim 60 wherein
said magnetic material includes permanent magnetic material.~~

~~Claim 62 (Canceled): The computer program product of claim 60 including
selectively magnetizing said magnetic material responsive to an
electric current.~~

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

11

Docket No.: 20028-7004

- Claim 63 (Canceled): ~~The computer program product of claim 60 wherein said magnetic material is integrated into said fiber waveguide.~~
- Claim 64 (Canceled): ~~The computer program product of claim 59 wherein said elements are circular polarization filters having a crossed transmission orientation.~~
- Claim 65 (Canceled): ~~The computer program product of claim 59 wherein said elements are circular polarization filters having an aligned transmission orientation.~~
- Claim 66 (Canceled): ~~The computer program product of claim 55 wherein one or more of said wave components may be extinguished responsive to preselected control signals from said controller to one or more corresponding modulators.~~
- Claim 67 (Canceled): ~~The computer program product of claim 55 wherein said modulators each have an output port for producing said wave component with said influencer controlled intensity.~~
- Claim 68 (Canceled): ~~The computer program product of claim 67 wherein said output ports are arranged into a display pattern.~~
- Claim 69 (Canceled): ~~The computer program product of claim 68 wherein said display pattern is a regular ordered matrix of N rows and M columns.~~
- Claim 70 (Canceled): ~~The computer program product of claim 67 further comprising a front panel for arranging said output ports into said pattern.~~

Application No.: 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

12

Docket No.: 20028-7004

Claim 71 (Canceled): ~~The computer program product of claim 68 wherein said front panel includes a pixel effect element proximate each corresponding output port.~~

Claim 72 (Canceled): ~~The computer program product of claim 71 wherein each said pixel effect element disperses said wave component from said corresponding output port.~~

Claim 73 (Canceled): ~~A propagated signal on which is carried computer-executable instructions which when executed by a computing system performs a method, the method comprising:
producing a radiation wave for each of a plurality of modulators, each modulator including:
a first element for producing a wave component from said radiation wave, said wave component having a polarization property wherein said polarization property is one of a set of orthogonal polarizations;
an optical transport for receiving said wave component;
a transport influencer, operatively coupled to said optical transport, for affecting said polarization property of said wave component responsive to a control signal; and
a second element for interacting with said affected wave component wherein an intensity of said wave component is varied responsive to said control signal; and
asserting selectively each said control signal to independently control said intensity of each said modulator.~~

Claim 74 (Canceled): ~~The signal of claim 73 wherein said first element and said second element are polarization filters.~~

Claim 75 (Canceled): ~~The signal of claim 73 wherein said elements are integrated into said transport.~~

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

13

Docket No.: 20028-7004

- Claim 76 (Canceled): ~~The signal of claim 73 including producing a controllable magnetic field parallel to a propagation direction of said wave through said transport to alter said polarization property.~~
- Claim 77 (Canceled): ~~The signal of claim 73 including altering said polarization property by changing a rotation angle of said wave component in a range from about zero degrees to about ninety degrees.~~
- Claim 78 (Canceled): ~~The signal of claim 73 wherein said transport is a fiber waveguide including a core and a cladding and wherein said influencer includes a magnetic material proximate said cladding.~~
- Claim 79 (Canceled): ~~The signal of claim 78 wherein said magnetic material includes permanent magnetic material.~~
- Claim 80 (Canceled): ~~The signal of claim 78 including selectively magnetizing said magnetic material responsive to an electric current.~~
- Claim 81 (Canceled): ~~The signal of claim 78 wherein said magnetic material is integrated into said fiber waveguide.~~
- Claim 82 (Canceled): ~~The signal of claim 77 wherein said elements are circular polarization filters having a crossed transmission orientation.~~
- Claim 83 (Canceled): ~~The signal of claim 77 wherein said elements are circular polarization filters having an aligned transmission orientation.~~
- Claim 84 (Canceled): ~~The signal of claim 73 wherein one or more of said wave components may be extinguished responsive to preselected control signals from said controller to one or more corresponding modulators.~~

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

14

Docket No.: 20028-7004

~~Claim 85 (Canceled): The signal of claim 73 wherein said modulators each have an output port for producing said wave component with said influencer controlled intensity.~~

~~Claim 86 (Canceled): The signal of claim 85 wherein said output ports are arranged into a display pattern.~~

~~Claim 87 (Canceled): The signal of claim 86 wherein said display pattern is a regular ordered matrix of N rows and M columns.~~

~~Claim 88 (Canceled): The signal of claim 85 further comprising a front panel for arranging said output ports into said pattern.~~

~~Claim 89 (Canceled): The signal of claim 86 wherein said front panel includes a pixel effect element proximate each corresponding output port.~~

~~Claim 90 (Canceled): The signal of claim 89 wherein each said pixel effect element disperses said wave component from said corresponding output port.~~

Claim 91 (New): A display method, the method comprising:
producing a radiation wave for each of a plurality of modulators
arranged into a matrix, each modulator of said plurality of modulators
including:
a first element for producing a wave component from said radiation
wave, said wave component having a polarization property wherein
said polarization property is one of a set of orthogonal polarizations:
an optical transport for receiving said wave component;
a transport influencer, operatively coupled to said optical transport, for
dynamically and variably affecting said polarization property of said
wave component responsive to a varying control signal; and
a second element for interacting with said affected wave component to

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

15

Docket No.: 20028-7004

produce an output wave component wherein an intensity of said output wave component is varied over a range of intensities responsive to said varying control signal; and asserting selectively each said control signal to said each of said plurality of modulators to independently control said intensity of each said modulator.

Claim 92 (New): The method of claim 91 wherein said first element and said second element are polarization filters.

Claim 93 (New): The method of claim 91 wherein said elements are integrated into said transport during manufacture of said transport.

Claim 94 (New): The method of claim 91 including producing a controllable magnetic field parallel to a propagation direction of said wave through said transport to alter said polarization property.

Claim 95 (New): The method of claim 91 including variably altering said polarization property by variably changing a rotation angle of said wave component at said second element in a range from about zero degrees to about ninety degrees.

Claim 96 (New): The method of claim 91 wherein said transport is a fiber waveguide including a core and a cladding and wherein said influencer includes a magnetic material proximate said cladding.

Claim 97 (New): The method of claim 96 wherein said magnetic material includes permanent magnetic material.

Claim 98 (New): The method of claim 96 including selectively magnetizing said magnetic material responsive to an electric current.

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

16

Docket No.: 20028-7004

- Claim 99 (New): The method of claim 96 wherein said magnetic material is integrated into said fiber waveguide during manufacturing of said fiber waveguide.
- Claim 100 (New): The method of claim 95 wherein said elements are circular polarization filters having a crossed transmission orientation.
- Claim 101 (New): The method of claim 95 wherein said elements are circular polarization filters having an aligned transmission orientation.
- Claim 102 (New): The method of claim 91 wherein one or more of said output wave components may be extinguished responsive to preselected control signals from said controller to one or more corresponding modulators.
- Claim 103 (New): The method of claim 91 wherein said modulators each have an output port for producing said output wave component with said influencer controlled intensity.
- Claim 104 (New): The method of claim 103 wherein said output ports are arranged into a display pattern.
- Claim 105 (New): The method of claim 104 wherein said display pattern is a regular ordered matrix of N rows and M columns.
- Claim 106 (New): The method of claim 103 further comprising a front panel for arranging said output ports into said pattern.
- Claim 107 (New): The method of claim 104 wherein said front panel includes a pixel effect element proximate each corresponding output port.

Application No. 10/812,295
Amendment dated October 30, 2006
Reply to Office Action of June 30, 2006

17

Docket No.: 20028-7004

Claim 108 (New): The method of claim 107 wherein each said pixel effect element disperses said wave component from said corresponding output port.

Claim 109 (New): The method of claim 91 wherein said wave component includes radiation at a predominate frequency capable of perception by an unaided human eye.

Claim 110 (New): A display method, the method comprising:
producing a plurality of radiation waves, a radiation wave associated with each of a plurality of modulators arranged into a matrix, each modulator of said plurality of modulators including:
a first element for producing a wave component from said associated radiation wave, said wave component having a polarization property wherein said polarization property is one of a set of orthogonal polarizations;
an optical transport for receiving said wave component;
a transport influencer, operatively coupled to said optical transport, for dynamically and variably affecting said polarization property of said wave component over a range of polarization angles responsive to a control signal; and
a second element for interacting with said affected wave component to produce an output wave component wherein an intensity of said output wave component is varied from an extinguished level to a maximum level with at least one intermediate level responsive to said varying control signal changing an polarization angle of said wave component at said second element; and
asserting selectively each said control signal to said each of said plurality of modulators to independently control said intensity of each said modulator.